

# riskfree

A safe journey to the future



# Integrated Risk Management

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Includes models that are adopted by the top management that are used for taking strategic decisions that meet legal obligations and that conform to our country conditions.

The concept of globalization, technological advancements, increasing crisis frequencies and increasing capital movements have resulted in fund providers to have their investments secured all over the world.

Risk management has been included among international standards with arrangements such as Basel I, Basel II, COSO, SoX.

Integrated Risk Management applications, it is possible to define the strategies and tactics needed to correct the structural deficits of institutions and to transfer any undesirable risks.

The main purpose of using Integrated Risk Management solutions is to ensure that the risks which have to be measured by institutions using rather complex methods are incorporated in the institutional culture in a more effective and integrated manner.

In applications all over the world, risk management process has a cycle that consists of certain basic steps.

- Risk Assessment
- Risk Measurement
- Risk Reporting
- Risk Transfer / Mitigation
- Review and Control

After defining all risks and preparing the risk matrix, financial risks (exchange rate risk, interest risk, price risk, and liquidity risk), Credit/Customer risk, and operational risks must be measured under the roof of risk management. A large number of globally accepted statistical and econometric models must be used to measure these risks.

After doing the measurements, all results must be assessed and a decision must be made as to whether they are within the institutional tolerances. Risk transfer can be decided for risks outside the tolerances. Risk transfer can be made through financial derivative tools for hedging or insurance can be used to be protected from some risks.



## Products and Solutions

## Consultancy Services

With 'riskfree' solutions which are a product of GANTEK and RiskActive partnership, we aim to contribute to the growth of Turkish economy by developing decision making tools that ensure perception, measurement and correct management of risks.

- Financial Engineering Solutions
  - Data Miner
  - Financial Instrument Analyzer
- Market Risk Solutions
  - Market Risk
- Credit Risk Solutions
  - Internal Rating & Credit Process
- Operational Risk Solutions
  - Internal Control & OpRisk Data Manager
- Real Sector Integrated Risk Management Solutions
  - Real Sector Risk Management
- Risk Management System Audit
- Institutional Model and System Development
- Risk System Validation
- Risk System Installation
- Business Processes and Systems Audit



## 'riskfree' Solutions



In riskfree solutions risk management is not only a process of measurements, Risk management process is known to be a whole that consists of risk identification, measurement, reporting, transfer and improvement and solutions have been designed to include all these steps.

It is obvious that applications not supported by the top management cannot survive. Therefore, the most important characteristic of the designed solutions is that they have been focused on the decision support needs of the top management.

On the other hand, risk management is an institution-wide task. Therefore, it is vital for the sound operation of the systems to be established is that the solutions include the processes that lead to risks.

Transfer of risks which have been measured and found to be outside the tolerances is as important as the other steps. Therefore, one of the most important features of our solution is that it provides the tools needed to collect the infrastructure data related to transfer by insurance and to make the transfer calculations and analyses using derivative products.

As a result, in a world of increasing risks and ambiguities, it is unavoidable for the companies to use 'Integrated Risk Management' tools and solutions that will help company owners and top management take vital decisions and shed light on their way.

Such decision support systems help develop institutional reflex against crises. Thus it takes less time to react to crises and to take measures.

These solutions must be able to turn global models to local applications, user-friendly, easily integrated and technically sufficient to be efficient and effective.



## Local Support and Development Resources

As a Turkish company, GANTEK will give you the fastest and the highest quality service in the area of local support and application. A leading Turkish company with its efforts in this sector, RiskActive will turn advanced global models into local applications to help you adapt to global advancements in the fastest and the most effective way.

The fast and quality consultancy service, support and development services you have been provided by GANTEK and RiskActive will help your company quickly adapt to the changing local market conditions and to special circumstances caused by legislation.

"riskfree" which we have designed using totally local resources provides you an alternative with price/performance benefits. The future versions and modules of the product shall be reshaped in consideration of your requirements and those of the market.

## Customized Functions and Applications Designed with Merged Powers

You will be able to make better strategic decisions by using global models that have been adapted to developing markets and to Turkish markets, rather than making exact copies of the global models.

## Modular Design and New Generation Architecture

riskfree solutions that have been based on new generation architecture shall be supported by new modules that are added in parallel with the future requirements. RiskFree solutions provide good and effective solutions with premium characteristics that help institutions give decisions of survival in global competition environment.



# Financial Instrument Analyzer

'Financial Instrument Analyzer' is a financial decision making tool that uses processed and filtered financial time series to analyze and price financial instruments. It employs globally accepted financial engineering models and techniques which have been adapted to developing markets.

It can make calculations and analyses for many instruments such as instruments with fixed income, vanilla type derivative products, exotic derivatives and structured derivative products. It can establish various strategies for options.

## Volatility Analysis

Potential ambiguities can be identified in advance by using advanced methods such as MA-EWMA-GARCH in order to accurately evaluate the volatility in the market. The periods during which risk increases or decreases can be determined by volatility measurement.

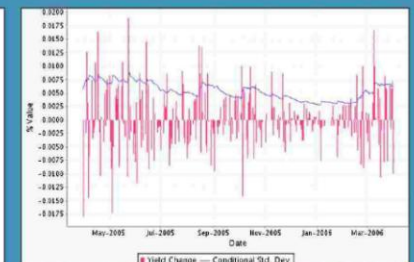
## Yield Curve Analysis

It is vital to transform the future values into present value by using the correct interest rate. Financial Instrument Analyzer calculates the yield curve using advanced models which have been tailored for emerging markets and precisely determines the interest for each due date in different interest markets.

 Riskfree



The screenshot shows the 'Financial Instrument Analyzer' software interface. It features a sidebar with categories like 'Derivatives', 'Fixed Income', and 'Analysis'. The main area contains several input fields and dropdown menus for configuring calculations, such as 'Calculation Type', 'Maturity Date', and 'Strike Price'. A 'Calculate' button is visible at the bottom.



# Market Risk

Market Risk uses advanced volatility and yield curve models to measure the values at risk (VaR) in portfolios of the institutions and to support these measurements using stress tests and scenario analyses.

With Market risk solution, it is possible to do VaR (Value-at-Risk) calculations for 23 instruments using Parametric Model, Historical Simulation Model and Monte Carlo Simulation Model.

Stress tests and scenario analyses use risk factor, volatility and correlation based shocks to accurately measure periodical crises such as November Crisis 2000, February Crisis 2001 and risks that an institution can face under abnormal market conditions such as Devaluation, Interest Increases and the results can be expressly reported.

Special analyses such as Marginal VaR and Incremental VaR are used to find out where institutional market risks have been focused. Undesirable, risky portfolios and positions can thus be avoided.

Raroc analyses are used to make capital measurement and performance analyses corrected by risk. Ecap analysis is used to make economic capital calculation and capital optimization decisions. Limit systems are used to prevent taking unlimited risk.

Your decisions shall be more effective if the outputs are adapted from global models in consideration of local economic conditions.



# Internal Rating & Credit Process

Internal Rating & Credit Process is an advanced rating system solution where qualitative and quantitative criteria needed by your institutions to rate its credit clients/agents and guarantees are coupled with analytic models. It includes the decisions support tools used for defining credit policies and evaluating the clients according to their creditability.

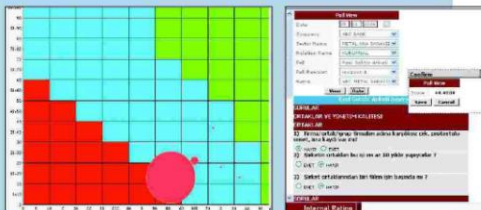
Basic Functions;

- Basic definitions
- Financial Charts, Ratio/Trend analyses functions
- Survey design and organizations function
- AHS function
- Client/Agent rating
- Collateral rating
- Follow up functions

The financial charts needed to credit the institution are entered in the system or transferred from the database according to the sector and the customer type. Any changes can be made to these transferred data and both the original format and the revised version can be traced to make calculations.

Similarly, poll designs can be made based on sector and credit/relation type and questions and answer weights can be customized for each sector. The poll questions and their weights can be defined according to the sector.

After company information is entered in the system, company rating is calculated based on the defined credit policy and the rating of the guarantee for the credit as well as the company rating can be traced using the matrix.



# Internal Control & OpRisk Data Manager

Internal Control & OpRisk Data Manager is our solution which has been designed to create the environment needed for;

- Identifying the risks
- Preparing the risk matrix
- Making inspection planning and keeping the reports
- Keeping and tracing risk points and, KPI, KRI, KCI's
- Keeping operational loss data and calculating risks
- Keeping insurance data
- Keeping external loss data

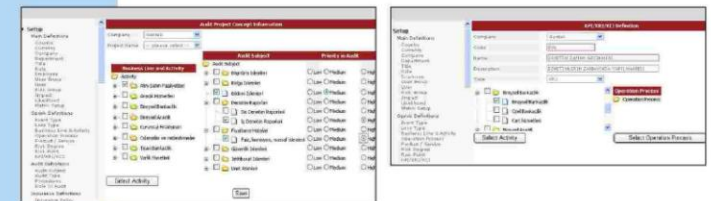
and to assess the collected data in order to see the operational risks of the institution.

In order to manage operational risk, institutions must define their activities that may cause operational risk and must measure them to save the capital reserve.

Operational risk measurement and management is a living process. Establishment of continuous development cycle is the most important step in the structure that continuously develops the institution's system sand processes and minimizes operational risks. At that point, in order to have coherent results, it is very important to collect data from anywhere within the institution and from the inspection reports.

Basic functions of solution;

- Risk identification and risk matrix preparation function
- Inspection planning and inspection results reporting function
- Risk point and Key Indicator Control function (KPI, KRI, KCI ...)
- OpRisk finding and loss tracing function
- Insurance policy and clause tracing and reporting function
- External loss tracing function



# Real Sector Risk Management

This is designed to measure and manage risks, including financial risks, of real sector companies. Its analysis methods content makes it a decision making tool for the top management.



Gantek, dedicated to the principles of corporate governance along with 22 years of experience in Information, Communication and Automation Technologies (iCAT), provides solutions in Turkey and the CIS Region as the leading Systems Integrator.

This system helps;

- Analyze financial structure of companies using ratios,
- Measure the effects of fluctuations in market risk factors such as interest, exchange rate, parity, merchandise prices on financial positions and balance sheet values,
- Perform stress tests by reflecting the economical fluctuations and shocks in the past years to the current balance sheet values,
- Simulate any possible fluctuations and shocks in the form of scenarios.

Solution Functions are classified as follows;

- Financial Chart and Ratio Analyses Function
- Yield Curve and Volatility Analyses Function
- Statistical and Econometric Analysis Function
- Market Risk (VaR Analyses) Function
- Stress Test and Scenario Analyses Function
- Active Passive Management Function
- Risk Transfer Function.

Gantek, investing continuously in R&D for the past 9 years, is positioned as one of the most innovative iCAT companies in the Region. The company provides focused solutions such as, Number Portability, Revenue Maximization and Value Added Services (VAS) for telecommunications sector, Risk Management solutions for finance and real sectors. Gantek is enabling effective solutions based on its long-term collaboration with all mobile and fixed-line operators and leading finance institutions in Turkey along with telecom operators in CIS countries. With business volume exceeding \$74 million, highly professional workforce and key strategic partnerships, Gantek is one of the fastest growing technology companies in Turkey; as such the company has been quoted in Deloitte's Fast 50 Research every year since the Research has begun.

For more information please visit [www.gantek.com](http://www.gantek.com)

Adi	Formül	Değer	Min. Value	Max. Value	Optimum Value
<b>MİLE YAPIL ORANLARI</b>					
BANKA KREDİLERİNİN ÖZ KAYITLARA ORANI		0.08	0.1	0.3	0.2
KISA VADELİ YABANCI ÖZ KAYITLARA ORANI		0.27	0.4	0.9	0.5
KISA VADELİ YABANCI PASİF TOPLU ORANI		0.13	0.4	0.8	0.4
ÖZ KAYITLARININ AKTİF TOPLARINA ORANI		0.60	0.6	0.8	0.6
YABANCI KAYITLARININ ÖZ KAYITLARA ORANI		0.47	0.4	0.6	0.5
<b>ARILIK ORANLARI</b>					
BRUT KAR ORANI		0.10	0.6	0.9	0.7
NET KAR ORANI		0.12	0.8	1.0	0.9
<b>ÖDEME ÖLÇÜ ORANLARI</b>					
CARİ ORAN		1.05	0.5	1.5	1.0
HAZİR DEĞERLER ORANI		0.42	0.6	1.6	0.8